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**BEST AVAILABLE COPY****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application:  
Application No.:  
Filed:  
Title:  
Commissioner for patents  
Washington, D.C. 20231

**POWER OF ATTORNEY BY ASSIGNEE OF ENTIRE INTEREST**  
**(REVOCATION OF PRIOR POWERS)**

As assignee of record of each of the patent applications listed in the table of attachment A,

**REVOCATION OF PRIOR POWERS OF ATTORNEY**

all powers of attorney previously given in each of the listed patent applications are hereby revoked, and

**NEW POWER OF ATTORNEY**

the following attorneys/agents are hereby appointed to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: I hereby appoint all attorneys of Thomas, Kayden, Horstemeyer & Risley, LLP, who are listed under the USPTO Customer Number shown below as the attorneys to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith, recognizing that the specific attorneys listed under that Customer Number may be changed from time to time at the sole discretion of Thomas, Kayden, Horstemeyer & Risley, LLP, and request that all correspondence about the application be addressed to the address filed under the same USPTO Customer Number.

**24504**

Patent Trademark Office

Please direct all future correspondence and telephone calls to:

**Daniel R. McClure, Reg. No. 38,962**  
**THOMAS, KAYDEN, HORSTEMEYER & RISLEY, L.L.P.**  
100 Galleria Parkway, Suite 1750  
Atlanta, Georgia 30339  
770-933-9500

**ASSIGNEE OF ENTIRE INTEREST**  
**TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.**  
8, Li-Hsin Rd. 6  
Hsinchu Science Park  
Hsinchu, Taiwan 300-77, R.O.C.

**ASSIGNEE CERTIFICATION**

The certification under 37 C.F.R. §3.73(b) establishing the right of assignee to take action is attached hereto along with documentation evidencing same. Further, in my official position with Taiwan Semiconductor Manufacturing Company, Ltd., I am authorized to sign documents and otherwise act on its behalf in connection with the management and handling of patent applications and other intellectual property matters.

Date: June 29, 2004


Chien-Wei (Chris) Chou  
Chien-Wei (Chris) Chou  
Director - Intellectual Property Division

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## Attachment A

No.	Serial No	TSMC No.	Application Title	Filing Date	Assignment (Reel/Frame)
1	10/181,819	TS2001844	A New Dual Damascene Process	06/04/02	012974/0341
2	09/846,536	TS1999646B	Novel Self-Aligned, Low Contact Resistance, Via Fabrication Process	05/02/01	Recorded 010745/0925 at the parent application USP 6245657
3	10/213,609	TS2000467	A Novel Chrome Mask Dry Etching Process to Reduce Loading Effect and Defects	08/07/02	013172/0276
4	10/453,049	TS2000623B	Grooved Heat Spreader for Stress Reduction in IC Package	06/03/02	recorded 012044/0970 at the parent application USP 6607942
5	10/370,346	TS2000323B	Seal Ring Structure for Radio Frequency Integrated Circuits	02/19/03	recorded 012128/0185 at the parent application USP 6537849
6	09/728,683	TS1998338B	Step-Shaped Floating Poly-Si Gate to Improve Gate Coupling Ratio for Flash Memory Application	11/30/00	recorded 010090/0990 at the parent application USP 6225162
7	10/238,268	TS20011752	Method of Fabrication of Rim-Type Phase Shift Mask	09/10/02	013278/0662
8	10/307,817	TS20011195	Novel Method to Fabricate High Reliable Metal Capacitor Within Copper Back-End Process	12/02/02	013546/0849
9	10/318,468	TS20020032	Novel Architecture to Suppress Bit-Line Leakage	12/13/02	013593/0488
10	10/187,675	TS20011023	Charge Effect and Electrostatic Damage Prevention Method on Photo-Mask	07/02/02	013087/0171
11	10/672,395	TS20021308	Method of Selectively Making Copper Using Plating Technology	09/26/03	014548/0543

Date:

June 29, 2004
  
 Chien-Wei (Chris) Chou

Director - Intellectual Property Division



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: Chu et al.

Application Serial No.: 09/846,536

Filed: May 2, 2001

For: A Novel Self-Aligned, Low Contact Resistance Via Fabrication Process

Patent No.:

Issue Date:

Commissioner for Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

**CERTIFICATE UNDER 37 C.F.R. §3.73(b)  
ESTABLISHING RIGHT OF ASSIGNEE TO TAKE ACTION**

1. The assignee of the entire right, title and interest hereby seeks to take action in the PTO in this matter.

**IDENTIFICATION OF ASSIGNEE**

2. The assignee of this matter is:

**TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.**

8, Li-Hsin Rd. 6

Hsinchu Science Park

Hsincu, Taiwan 300-77, R.O.C.

**PERSON AUTHORIZED TO SIGN**

3. Daniel R. McClure  
Attorney for Assignee

4. A chain of title from the inventor(s) to the current assignee is shown below:

- a. From: Wen-Ting Chu, Hsin-Ming Chen  
To: Taiwan Semiconductor Manufacturing Co., Ltd.  
Recorded in PTO: Reel: 010745 Frame: 0925
- b. From:  
To:  
Recorded in PTO: Reel: Frame:

**DECLARATIONS**

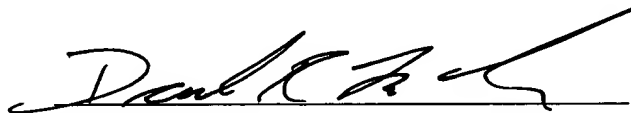
5. I, the undersigned, have reviewed all the documents in the chain of title of the

☒ application  
☐ patent

matter identified above and, to the best of my knowledge and belief, title is in the assignee identified above.

6. I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

7. I, the person signing below, aver that I am empowered to sign this statement on behalf of the assignee.



**Daniel R. McClure, Reg. No. 38,962**

Tel. No. 770-933-9500  
Customer No.: 24504

**THOMAS, KAYDEN, HORSTEMEYER  
& RISLEY, L.L.P.**  
100 Galleria Parkway, Suite 1750  
Atlanta, Georgia 30339-5948

Docket No. 252016-1190